

Lectotypification of four names in *Argyreia* (Convolvulaceae)

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Abstract

Lectotypes of *Argyreia atropurpurea*, *A. hookeri*, *A. mastersii* and *A. sericea* are designated here.

Introduction

Loureiro (1790) established the genus *Argyreia* with three species namely *A. obtusifolia*, *A. acuta* and *A. arborea*. The genus now comprises 135 species with five varieties, mainly distributed across tropical Asia (Staples and Traiperm 2017), with 43 species and three varieties known to occur in India. Clarke (1883) reported 25 species of *Argyreia* and 21 species of *Lettsomia* in the Flora of British India. Of these, Clarke (1883) described five *Argyreia* and 15 *Lettsomia* as new species, with almost all *Lettsomia* species now treated under *Argyreia* (Shalini et al. 2015). Later, Prain (1894) reported some additional species from India and also described a few novelties. As part of a revisionary study on the genus *Argyreia* in India, it was found that the four names *A. atropurpurea* (Wall.) Raizada, *A. hookeri* C.B. Clarke, *A. mastersii* (Prain) Raizada and *A. sericea* Dalzell require lectotypification in accordance with Art. 9.2 of the ICN (McNeill et al. 2012).

Nomenclature

1. *Argyreia atropurpurea* (Wall.) Raizada, *Indian Forester* 93(11): 754 (1967).

Convolvulus atropurpureus Wall. in Roxb., *Flora Indica* 2: 54. 1824. *Ipomoea atropurpurea* (Wall.) Sweet, *Hortus Britannicus*, ed. 2: 372. 1830. *Lettsomia atropurpurea* (Wall.) C.B. Clarke in Hook.f., *The Flora of British India* 4: 194. 1883.

Lectotype (designated here): Nepal, near Gosain-Than, November 1819, *Wallich 1345* (K0001112812, image!). **Fig. 1.**



Fig. 1. Lectotype of *Argyreia atropurpurea* (Wall.) Raizada, Wallich 1345 (K001112812) © The Board of Trustees of the Royal Botanic Gardens, Kew. Reproduced with the consent of the Royal Botanic Gardens, Kew.

Distribution: India (Sikkim and West Bengal) and Nepal.

Wallich described the specimen that he had collected near Gosain-Than in northern parts of Nepal during November 1819 as *Convolvulus atropurpureus* in Roxburgh's Flora Indica (1824). A total of six specimens of *Convolvulus atropurpureus* bearing Wallich's original label (1345) were traced at K-W, K and G-DC. Of the three sheets at K-W, only one specimen (K001112812) contains the same details provided in the protologue (i.e., Gossain-Than, November) and has a flowering material that matches well with the details mentioned in the protologue. Hence, this specimen is selected here as the lectotype for the name while other specimens with the same field label 1345 are considered isolectotypes.

Note: According to Staples and Traiperm (2017) one of the three sheets at K-W with Wallich's original label (the designated lectotype) differs in having different locality and date. However, we have chosen this specimen as the lectotype of the name, as the original label attached with the specimen has same locality and month of collection of the plant material as mentioned in the protologue (Flora Indica, 1824), which was published well ahead the date of publication of Wallich's Numerical List (1828–1849).

2. *Argyreia hookeri* C.B. Clarke in Hook.f., *The Flora of British India* 4: 190 (1883).

Lectotype (designated here): India, Sikkim Himalaya, alt. 1–4000 ft, *s.d.*, J.D. Hooker *s.n.* (K0001801783, image!). **Fig. 2.**

Distribution: India (Andaman and Nicobar Islands, Assam, Meghalaya, Sikkim and West Bengal), Bhutan, Nepal, Myanmar and Thailand.

Argyreia hookeri is a climber growing in subtropical forests at elevations ranging from 1000 to 4000 feet in Nepal, Bhutan, Myanmar and Thailand. Clarke (1883) described this species based on collections from Assam, Sikkim Himalaya and Bhutan made by Hamilton, J.D. Hooker and Clarke, himself, respectively. Of these, the specimen of Hamilton could not be traced. The two specimens collected by Clarke have been located, one each at CAL (Bhotan, Kalimpong, 4000', 18 November 1875, C.B. Clarke 25427 D, CAL0000018516, image!) and K (Bhotan, Kalimpong, 4000', 18 November 1875, C.B. Clarke 25427 B, K000830588, image!) but the elevation of the place of collection differs from that of protologue. Furthermore, nine more specimens were traced at CAL (CAL0000018492), K (K000830585, K000830586, K000830587, K001081783, K001081784), G-DC (G00017126) and P (P00584821, P00584822), all collected from Sikkim at 1–4000 feet elevation by J.D. Hooker.

Though all these would be considered as original material, we consider it appropriate to choose a lectotype from amongst Hooker's specimens since Clarke honoured him by naming the species *Argyreia hookeri*. So, of all the nine Hooker specimens, we here select as lectotype of the name, the one sheet housed at K (K0001801783). This specimen matches the protologue well in the recorded locality and elevation, and also has annotations of a few diagnostic characters made by Hooker himself: "Flowers pale purple, stamens 2 long & 3 short all included". This specimen includes flowering and fruiting materials that reflect the original description, and is thus preferable to the other specimens. The specimen at P (P00584821, image!), which has a drawing, can be considered an isolectotype.

3. *Argyreia mastersii* (Prain) Raizada, *Indian Forester* 93(11): 754 (1967).

Lettsomia mastersii Prain, *Journal of the Asiatic Society of Bengal. Part 2. Natural History* 63: 98 (1894).

Lectotype (designated here): India, Assam, Naga Hills, *s.d.*, Masters 255 (CAL0000018546!). **Fig. 3.**

Distribution: India (Assam, Meghalaya and Mizoram), China, Myanmar and Thailand.

Argyreia mastersii is a vigorous climber, distributed in northeast India, China, Myanmar and Thailand. Prain (1894) described this species based on collections from Assam and Burma (Myanmar) made by Masters (Naga Hills, *s.d.*, Masters 255, CAL0000018546, K000197304, Collett) (Naga Hills, Pher.. illegible, 1000 ft, 1882, H. Collett 54, CAL0000018544) and King's Collector (Garo Hills, Chima, 500 ft, December 1890, Dr. King's Collector, CAL0000018541, CAL0000018542, CAL0000018543, CAL0000025898, CAL0000025899, K000197305 and P00584827; Upper Burma, Chin Hills, June 1892, Abdul Huk *s.n.*, CAL0000018545). Of the two specimens housed at K, one was collected by Masters without date of collection and field number. However, an identical specimen was located at CAL with field details: "Naga Hills, No. 255, Masters" (at the bottom of the label something illegibly written as "hills g...", probably a place in Naga Hills, but not Garo Hills, as these two hills are geographically far away (at least about 470 km from each other), which is a good match with the protologue. Hence, this specimen is chosen here as the lectotype for the name while the specimen at K (K000197304, image!) can be considered an isolectotype



Fig. 2. Lectotype of *Argyreia hookeri* C.B. Clarke, J.D. Hooker s.n. (K0001801783) © The Board of Trustees of the Royal Botanic Gardens, Kew. Reproduced with the consent of the Royal Botanic Gardens, Kew.



Fig. 3. Lectotype of *Argyreia mastersii* (Prain) Raizada, Masters 255 (CAL0000018546).

4. *Argyreia sericea* Dalzell in Dalzell & A. Gibson, *The Bombay Flora*: 169 (1861).

Lectotype (designated here): India, North & South Concan, *Mr. Law s.n.* (K000830640, image!). **Fig. 4.**

Distribution: India (Andhra Pradesh, Karnataka, Madhya Pradesh, Maharashtra, Punjab, Rajasthan and Tamil Nadu). **Endemic.**

Dalzell (1861) described this species on the basis of collections from southern Concan, and on the high hills west of Joonere (now Junnar, Maharashtra). Graham (1839) for his Catalogue of plants in Bombay, and Dalzell and Gibson (1861), for their Flora of Bombay, relied primarily on the collections of John Sutherland Law (1810–1885) of the Civil Service of then Bombay Presidency, who made large collections of plants in Concan and Deccan regions. At Kew, there are three specimens (North & South Concan, *Mr. Law s.n.*, K000830640, image!; Canara & Mysore, *Mr. Law s.n.*, K000830641, image!; Bombay, *Law s.n.*, K001081768, image!) collected by Law, and also a specimen (K000830639, image!) of Dalzell's without precise locality and any annotation but with a label reading "BOMBAY Herbarium of the late N.A. DALZELL; Presented by Mrs. Dalzell, April 1878". Among the above four collections, the specimen of Mr. Law bearing the barcode, K000830640, is chosen here as the lectotype of the name as the place of collection and diagnostic characters of the species match well with the protologue.

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Fig. 4. Lectotype of *Argyreia sericea* Dalzell, Mr. Law s.n. (K000830640) © The Board of Trustees of the Royal Botanic Gardens, Kew. Reproduced with the consent of the Royal Botanic Gardens, Kew.